

REMARKS

Claims 10 and 11 were added via a previous amendment. Claims 12-15 have been added via the present amendment. The claims remaining in the application are 1-15.

Rejection Under 35 U.S.C. § 103

The Office Action has rejected claims 1-11 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,225,900 (Wright), and further in view of machine translation JP 8-194791 (Yasuo). This rejection is respectfully traversed.

The Wright patent clearly states in column 6, line 38, “When a taggant fluoresces or reflects light at a predetermined wavelength, the output light for each taggant can be detected and the presence or absence of taggant can be determined...” (emphasis added). The statement, in other forms, is repeated throughout the specification. The taggant material in the Wright patent is certainly added to the ink or otherwise applied to the image being printed. However, there is no determining of a distribution of taggant at any time, nor is any image of the taggant distribution obtained. The taggant material is either present in/on the image or it is not. This is a presence versus absence detection system. There is never an image of the distribution of taggants. The fact that the word “image” and the word “taggant” appear in the Wright patent does not give the reader the right to suggest or assume that there is an image of the taggant distribution, when Wright does not make such a suggestion.

The machine translation of the Yasuo reference is atrocious, however, careful reading of the reference shows that it is a one-dimensional reading system, thoroughly incapable of determining a two-dimensional distribution of ferrite particles. Also, detection is by means of the impedance change induced in a half-coaxial resonator by the presence or absence of ferrite particles. This system does not have enough resolution to image the particles. Consider:

Paragraph 0008, line 5: “The two-dimensional code card which the detection line of the predetermined position...”

Thus, while the code card is two-dimensional, the detection of the password is a “line,” i.e. one-dimensional.

Paragraph 0008, line 8: "...using a characteristic magnetic pattern as a password." This is hardly an "image" and it is strictly one-dimensional as in line 5.

Paragraph 0009, line 5: "... compares a password from the detection line of said decided position..." This is one-dimensional.

Paragraph 0012, line 1: "Further, the detection line 3P of the magnetic pattern decided beforehand is set to the card 1...it is not limited to this line in particular." The inventors can therefore choose any line. A line is ipso facto one-dimensional.

Paragraph 0015, line 1: "...a predetermined detection line will be horizontally scanned..." line 5: "Microwave absorption takes place in that the ferrite on a predetermined detection line exists, and a magnetic patter peculiar to this card 1 is detected." Again, this is a line and while there is a magnetic patter, there is no "image," since images are two-dimensional.

Paragraph 0016, line 1: "...since there is three (?) output change like drawing 3 as magnetic pattern the case of card 1..." This clearly shows that the kind of result obtained looks like Figure 3. Figure 3 shows broad peaks induced by the presence of ferrite particles. No claim is made that they are imaged.

Paragraph 0019, line 5: "Moreover, since a password can be changed only be changing the position of a detection line..."

Reference to Figure 3 and, in particular, to the very last quoted line, shows categorically that the inventors make a point of the fact that only a single line across the card is magnetically read for taggant, and that it generates a one-dimensional code or pattern or "password." In fact, they explain, as is obvious from Figure 1, that by moving the line of reading, a different pattern can (meritoriously) be generated due to the particles being differently distributed along the new line. Claim 1 makes it clear that they are using a "characteristic magnetic pattern." This is not an image.

The title of Yasuo reference and the subject matter is two-dimensional code cards. However, the security function is totally one-dimensional with no reliance for its function on the two-dimensional nature of the random distribution of taggant particles.

- a. This prior art does not show generation of an image of taggant distribution. It shows generation, in the words of the reference, a “characteristic magnetic pattern.”
- b. The method of the reference does not even generate a one-dimensional distribution. It shows generating a “characteristic magnetic pattern,” again, quoted verbatim.
- c. At best the reference shows generating a characteristic curve, which is referred to as a “magnetic pattern” that is a result of the location of taggant particles intersected by a line across the card.
- d. The result of the above is clearly a curve with some broad peaks on it, as clearly shown in Figure 3. Scientifically, a series of relatively broad peaks, each considerably larger than the particle inducing an impedance change in a half-coaxial resonator, is exactly what one would expect from a resonator system that detects impedance variations. This is not “imaging.” For imaging one needs a signal with wavelength smaller than the object being imaged.

Applicants fail to understand how the Examiner makes the conceptual leap from a one-dimensional “characteristic magnetic pattern,” with inherently broad peaks much greater than an individual particle, to an image, which is inherently a two-dimensional concept. The practitioner in the field fully understands the detection limits of induction systems and could not equate this work to “imaging.” By way of example, if there were two ferrite particles located closer to each other along the scan line than the distance from the card to the detector, this prior art system could never resolve them. That is, it could never image the distribution, and the inventors of this prior art never intended to do so. The prior art inventors merely wanted “a characteristic magnetic pattern.” That was all they needed. They had no delusions about determining the actual particle

distribution, because, as practitioners in the field, they knew the scientific limitations of induction sensing.

Combining prior art could not yield the present invention as in the amended claims. In summary the prior art shows:

Wright: A presence versus absence detection system in which taggants are added to one or more inks used to print an image, the presence or absence triggering the system to take predetermined actions. The system makes no images of the taggant distribution and does not determine that distribution; only presence or absence.

Yasuo: A system that produces a characteristic curve by detecting, via inductive impedance changes, particles along one predetermined line across a card that has a random distribution of detectable particles, and then deriving from this detection a one-dimensional curve, called a "characteristic magnetic pattern," in order to produce a password. Again, no image is produced at any time.

Combining the two references would not provide an authentication method that is based on "taggant distribution coordinates," as in the amended claims. Also there is no compelling reason to combine references. In fact, the result of such an attempted combination would not produce the present, claimed invention. While the Examiner may certainly combine prior art from a single filed, there is no precedent that might give the Examiner the freedom to invent or add what neither piece of prior art provides namely, i.e.:

Imaging, as clearly specified by the present invention on page 4, line 5 and elsewhere in the specification, or;
The determination, as clearly described on page 5, line 19 of the present invention, or the actual coordinates of the vividly two-dimensional distribution shown in Figures 1a-1f.

CONCLUSION

Dependent claims not specifically addressed add additional limitations to the independent claims, which have been distinguished from the prior art and are therefore also patentable.

In conclusion, none of the prior art cited by the Office Action discloses the limitations of the claims of the present invention, either individually or in combination. Therefore, it is believed that the claims are allowable.

If the Examiner is of the opinion that additional modifications to the claims are necessary to place the application in condition for allowance, she is invited to contact Applicant's attorney at the number listed below for a telephone interview and Examiner's amendment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "N A Blish". It is enclosed in an oval shape.

Attorney for Applicant(s)
Registration No. 29,134

Nelson A. Blish/tms
Rochester, NY 14650
Telephone: 585-588-2720
Facsimile: 585-477-4646

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.